

# Med *Clean* *Propre* *Limpio* *Mediterranean*


**No. 77**
**Pollution prevention case studies**

## Cleaner production in the fruit and vegetable canning industry

### Company

The company Vegafruit from Brijesnica Mala is one of the leading fruit and vegetable canning companies in Bosnia & Herzegovina. It regularly employs 203 workers, and 300 seasonal workers during the canning period. Besides the domestic market, the company places its products also on the US and Western European markets, as well as in neighbouring countries such as Slovenia, Croatia, Macedonia, Serbia and Montenegro.

The production program in Vegafruit Company consists of pickling (Vegy programme), juices (Swity programme) and marmalades and compotes (Fruby programme) with a total canning capacity of 12,587,088 kg of fruit and vegetables.

**Industrial sector** Food industry, fruit and vegetable canning and trade.

**Environmental considerations** The production process generates a great quantity of solid waste of organic origin. In 2002, 5,468 t of vegetables were canned in the factory, generating 534 t of organic waste that was sent to landfill, involving a significant economic cost. Packaging waste (carton and nylon), also sent to landfill, represented a problem too.

**Background** Within the EC LIFE Third Countries project "Capacity Building in Cleaner Production", 2002-2005, an environmental diagnosis of the production process was carried out, focusing on the problem of solid waste disposal and emphasising the reduction of disposal costs. Thus, alternatives to waste disposal, such as recycling, were discussed. Waste market research was carried out and the financial effects of the possible measures were analysed.

**Summary of actions** Based on the analysis of the current situation, additional costs and alternative opportunities, it was decided to:

1. Collect the organic waste in a separate container, then to deliver it, without compensation, to a company for compost production.
2. Purchase a carton and nylon press, and to put pressed packaging waste on the market.

## Balances

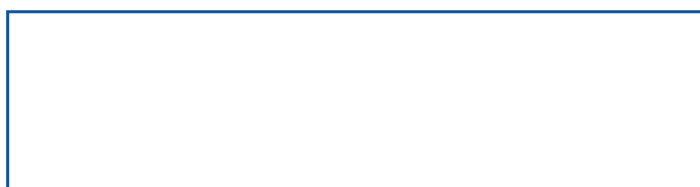
Measures	Investment (€)	Annual savings (€)
Composting of the organic waste	0	5,477
Recycling of the wrapping material waste	10,000	4,516
<b>Total investment</b>		<b>10,000</b>
<b>Total savings</b>		<b>9,993</b>
<b>Payback period</b>		<b>1 year</b>

## Conclusions

By applying the above-mentioned measures, the quantity of solid waste sent to landfill was reduced by 534 tonnes of organic and 51 tonnes of packaging waste. Thus, natural resources were preserved, valuable space was saved in the landfill, and economic benefits were achieved.

**NOTE: This case study seeks only to illustrate a pollution prevention example and should not be taken as a general recommendation.**

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